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AUTHOR Haigh, Neil J.
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ABSTRACT

A New Zealand study examines the interaction between 18 teachers and their respective classroom environments and actions in an attempt to isolate those factors contributing to each teacher's philosophy concerning the role and responsibility of pedagogy. Nine classroom teachers and nine student teachers are examined for degree of congruence between self-established educational objectives and actual classroom results. The rationale behind each individual's lesson planning strategy is investigated. This inquiry into the decision-making procedures of teachers attempts to construct a relationship between abstract conceptualization of teaching principles and concrete outcome in terms of learner performance. (LH)

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Towards an Understanding of Teacher Intentions and Decision-Making

Neil J. Haigh

University of Waikato
New Zealand

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Towards an Understanding of Teacher Intentions and Decision-Making

The Concept of Teaching

The manner in which teaching is defined inevitably shapes the objectives and methodology that characterize any piece of research concerned with the phenomenon. Within my own study, teaching has been defined as follows:

> "Teaching is attending to, taking account of, planning and attempting to control of influence particular conditions within the physical environment or in relation to persons, with the intention of facilitating learning in someone."

This definition reflects the assumption that most human behavior can be described as intentional. That is, it is associated with particular intentions which in the context of teaching represent thoughts the teacher will have about particular learnings he would like to facilitate in a learner as a result of his own actions. When the teacher envisages such an end (i.e. pupil learning), the operation of particular cognitive abilities may enable the teacher to produce a plan of action, whose specifications will in turn guide the actual actions the teacher undertakes when he endeavours to bring about the desired end. Thus teaching involves the teacher in paying attention to and taking account of conditions that exist within the environment or in relation to particular people, which he believes may influence the likelihood that he will be able to facilitate the learning he intends. It involves him in sorting out the particular learnings that he considers are in fact appropriate or desirable given his perceptions of these conditions. It involves him in consciously selecting or perhaps unconsciously reverting to a plan of action that is available from an

internal record of previously devised plans, or in constructing a new plan. It involves him then in implementing more or less completely those various plans of action, and it involves him in evaluating the extent to which the desired ends have been realized, or actions plans have been implemented successfully. We should remember here that whilst the ultimate end of teaching situations is learning, the teacher generally will have to attempt to bring about a variety of other sorts of intermediary ends as pre-requesites to the desired learnings. For example, the teacher can in one sense be said to have commenced a particular teaching activity as he makes up a chart that is to be used in the course of a lesson the following day. Here, the teacher hopes that the immediate end of these actions, a new teaching aid, will contribute to the likelihood that he will be able to facilitate the learning of his pupils.

Research Questions

A number of research questions would seem to logically follow from this conceptualization of teaching. For example:

(a) In the course of planning ahead for particular lessons, what are the types of ends that the teacher intends facilitating in the learner?

(b) What are the elements and the characteristics of the general intentions and plan of action that the teacher formulates as a means to bringing about these ends?

(c) To what extent do the teacher's actual actions within a teaching situation follow from a plan formulated prior to the lesson, or follow from a plan formulated while the lesson proceeds; and to what extent do they represent habitual actions that occur without prior conscious deliberation either before or during the lesson?

(d) To what extent are aspects of the teacher's intentions and action plans conditional, and what are the characteristics of such intentions?

(e) How readily and frequently does the teacher modify pre-lesson intentions and plans in the course of a lesson?

(f) What circumstances or conditions within a lesson does the teacher himself identify as the reasons for difficulty or failure to implement a pre-lesson plan?

(g) What modifications are made to these plans as the lesson proceeds?

(h) What are the characteristics of the decisions the teacher is conscious of making as the lesson proceeds? Does he see his intentions as changed or just the mode of execution?

(i) What are the implicit or explicit theories of teaching that are evidenced in the teacher's own explanations of the relationship between his perceptions of conditions in the teaching-learning situation and the ends and actions that he contends are appropriate or desirable when such conditions exist?

A Research Methodology

The present research then represents an attempt to develop procedures that will provide answers to some of these questions. The answers which are obtained will inevitably be circumscribed because the procedures could be utilised with only a limited number of teachers.

How might one set about tracing the thoughts a teacher has as he sets about teaching? At the outset, it is clear that the nature of the data that is to be obtained demands that the researcher work in a close cooperative relationship with the teachers who are his subjects. The teacher of necessity becomes in effect a co-researcher who makes public the thoughts that he has as he sets about teaching, and who helps the researcher gain an accurate understanding of the meaning of the statements he makes when he attempts to communicate, describe or account for his own thoughts and actions. If the researcher is to gain a full and accurate (i.e., honest) report from the teacher, then the latter must have a clear appreciation of both the objectives of the research and the particular procedures that he is involved in. Clearly the ability of the researcher to establish a cooperative research relationship with the teacher, and the preparedness of the teacher to become involved in it, are factors that may limit the extent to which the procedures can be readily and widely used, and influence the validity of the data obtained from teachers. In this study, to help achieve the degree of teacher support and cooperation that was desirable, I endeavoured to work with teachers whom I

had met previously, socially and/or in the context of university courses I was teaching, and a very thorough briefing on all aspects of the study was given at the outset.

The subjects of the study were 9 classroom teachers having varied years of experience, and 9 student teachers in the final year of a three year teacher education course.

The research methodology was designed to allow the teacher to provide data about his teaching intentions and actions without distorting or disturbing the naturalness of the act of teaching. Four basic procedures for data collection were developed.

In the first procedure, the teacher made a written 'stream of consciousness' record of the things that he consciously considered and made decisions about as he planned ahead for a forthcoming lesson. He was asked to make a written record whenever he was involved in the process of planning. As ideas came to mind, they were noted down in simple annotated or abbreviated form. At the end of the planning process, the teacher was asked to go back and fill out or rewrite notes that he felt might be unclear in meaning or illegible. He was asked to record all thoughts regardless of how trivial, irrelevant or even inappropriate they might seem to be. Where planning thoughts occurred at a time or in a situation that did not allow for them to be immediately recorded (e.g., under the shower) the teacher was asked to record these at first opportunity. The date and times at which these thoughts occurred was also noted.

The written record produced by the teacher was subsequently reviewed by the teacher and researcher together, to ensure that the latter's impressions of the meaning of the teacher's notes was correct. A pilot study clearly indicated that the written notes may be ambiguous in meaning or lack sufficient clarity to be reliably interpreted without this process of consultation. The researcher went through the notes carefully, seeking clarification and confirmation of the meaning of them. The categorization of the teacher's planning thoughts really occurred during this dialogue as the researcher indicated the categories of intention and plans that seemed to be represented in the notes,

and asked the teacher to indicate whether the categorization was appropriate.

Teachers indicated that the process of making written notes while they were thinking about the lessons did not seem to interrupt or distort the normal mental process of planning. However, they may have, perhaps unwittingly, failed to record some of their thoughts. On a few occasions, the review of the plan revealed that the written notes did not represent a complete record of intentions and plans. Some were not recorded, but were recalled in the course of the review. Failure to accurately record all thoughts was clearly more likely when they emerged spontaneously at a time when a recording sheet was not at hand (e.g. under the shower, in bed at night just before falling asleep) and as is discussed more fully when the lesson review procedures are outlined, it is also possible that some thoughts may be held in consciousness for such a brief period of time that the teacher does not actually acknowledge and record them.

The second procedure involved the teacher in answering a brief written questionnaire immediately after he completed his pre-lesson planning. The questions asked elicited responses indicating those aspects of the lesson which the teacher found easiest or most difficult to make a decision about; those aspects of the action plan that the teacher considered would be least likely or most likely to occur exactly as planned; and those aspects of the plan that the teacher considered would be most difficult or least difficult to implement successfully. The teacher's responses to the questionnaire were also reviewed by teacher and researcher at the outset of the post-lesson review.

Next the teacher taught the planned lesson, which was taperecorded so that he could subsequently review the lesson and comment on aspects of it. The tape record was intended to act partly as a memory-prompt for this task, but also as a means of checking on the congruence of intentions and plans with actual actions.

In other studies in which this 'stimulated recall' technique has been used, a video record has generally been made. There are several reasons why an audio rather than a video record was used in this study. These included

the possibility that a visual record would be more likely to distract the teacher from the requirements of the review task, and the possible effects of seeing a visual perspective that is different from that actually experienced by the teacher. Logistic problems in deploying the equipment, the expense of video tapes, and lack of time to provide the familiarization experiences that would be required were also taken into consideration. In using the audio record, there is some likelihood that the lack of visual cues may lead to an incomplete recall of certain aspects of the lesson. Teachers reported, however, that the audio record prompted a clear visual image of the events that had just occurred in the lesson. Such perceptions as the expressions on pupils' faces could be recalled quite vividly.

Immediately after the lesson has been completed, the third set of procedures were employed. The teacher and researcher first reviewed the pre-lesson planning record and questionnaire as described previously, and the teacher then indicated which aspects of the plan were, to his mind, implemented exactly as intended, and accounted where possible for those aspects of the plan that were either not implemented or were modified in some way. He was also asked to indicate any modifications he would wish to make to the plan if the lesson were to be repeated. The tape record was then replayed and the teacher identified, described and accounted for any aspects of the teaching situation that he could recall consciously attending to, reflecting on, considering and making decisions about as the lesson proceeded. The teacher was asked to stop the tape at all such points himself. As a measure designed to ensure that the teacher was continuing to concentrate on this task, the researcher stopped the tape occasionally, and asked for confirmation that there were no instances of conscious thought recalled for the preceding section of the tape record.

In discussing each instance of conscious thought with the teacher, the researcher endeavoured to establish the factors that may have provoked the thought, and the category of any response about ends or action plans that the teacher reported making. Sometimes these were immediately apparent in the teacher's comments. At other times, some more careful probing was required.

As well as responding to the researcher's specific directions, most

teachers spontaneously offered comments about various other features of the lesson. Many of these observations represented explanations for actions which they indicated were a standard, habitual response to certain events of situations. They were often prefaced by such statements as, "I've found that the only way to deal with...", or "When this happens I usually do..." and so on. In offering these comments, teachers seemed to be essentially describing some of the propositions that constituted their own theory of teaching. They were describing their beliefs about the appropriateness or necessity for particular categories of ends or actions when specific things occurred or became evident as a lesson proceeded. As well as this form of observation, some teachers obviously felt impelled to provide an explanatory commentary about the ends that they were hoping to achieve with particular actions, or simply indicate that a phase of the lesson corresponded with a segment of the plan or intentions, that had previously been discussed. This brings to mind Wittgenstein's comments on intentions (659)

> Why do I want to tell him about an intention too, as well as telling him about what I did? - Not because the intention was also something which was going on at that time. But because I want to tell him something about myself, which goes beyond what happened at that time.
>
> Wittgenstein, W., Philosophical Investigations
>
> trs. G.E.M. Anscombe, Blackwells, 1972

With the occurrence of these sorts of comments or observations from the teachers, I found it necessary to question them closely at times in an attempt to reliably determine whether their remarks were concerned with actions that were occurring as automatic habitual responses, or actions that did in fact follow from some instance of recallable thought. To try to maintain the distinction clear in the teacher's minds, I suggested to them prior to the first lesson replay that they would find the experience of reviewing the lesson somewhat similar to the one of trying to recall what they had been aware of and thought about during a long car trip, when the trip was finally over. That is, it was likely that they would find that there were sections of the journey/lesson where they could not recall experiencing any particular thoughts or feelings. There would, however, probably be some instances that would stand out more or less graphically, where they could recall experiencing such thoughts or

feelings. I must acknowledge that the experience of working with the teachers of this present study leads me to feel that this task of clearly and reliably distinguishing and recalling conscious thoughts and feelings is not as 'simple' as might have been considered. It must be recognized that thoughts may be associated with a period of conscious deliberation on some matter, or they may, in a seemingly uncontrolled fashion, emerge into consciousness without any deliberate attempt by the individual to have some cognitive process occur. In the latter instance, the individual may remain unaware that any cognitive process was occurring until some product of those processes emerged 'unexpectedly' into consciousness. Teachers talked of thoughts coming to them 'out of the blue', and without them being able to identify anything that might have triggered such a thought. In some such situations, thought and resultant action seemed to have occurred so rapidly that the teacher found it somewhat difficult to readily decide that he had in fact held some idea in consciousness for a moment of time. Teachers seemed to most convincingly distinguish thoughts that had been held in consciousness for a relatively longer period of time. For example, a pupil's response may lead the teacher to envisage a possible new topic and he describes how he found it difficult and somewhat frustrating, trying to hold the idea of this new topic uppermost in mind, as he simultaneously attempted to follow the answer being offered by a pupil who happens to respond infrequently. Where some thought appears in the teacher's consciousness as a fleeting or momentary event, and where it does not eventuate in some specific action, it is understandable that in a delayed recall situation, it may not be able to be reliably recalled and distinguished, even when some form of memory prompt is available and the time interval between occurrence and prompted recall is relatively short. In such situations, the possibility is heightened that the researcher may unwittingly 'lead' the teacher to make a definitive response, when in reality the uncertainty the teacher is experiencing does not really allow him to legitimately offer this. This type of danger has been acknowledged by other researchers, but it may be difficult to avoid despite one's best efforts. Additional research on the procedures themselves seems to be necessary if we are to fully appreciate any possible limitations to their use.

Apart from the possibility that the teacher's personal interest in aspects of the tape that are unrelated to the researcher's interest may

distract him from the task, the possibility of fatigue reducing concentration must also be acknowledged. Teachers in this study taught lessons that lasted on average some 20 to 30 minutes. The total period of time required for the review of the lesson plan, the questionnaire and the lesson itself was a minimum of 1½ hours. Several teachers, particularly those working in afternoon sessions, remarked that they were surprised to find how tiring the sessions were. With a demanding data collection schedule, I also found the sessions quite tiring, and had to reduce my attempts to keep up with transcription of tapes to ensure that I remained sufficiently alert myself.

The final procedure involved a structured interview with the teacher, in which the teacher's perceptions of aspects of his own day to day conscious experience of teaching were discussed. Topics discussed included current attitudes towards teaching, pre-lesson planning practices, modification of plans, cues for monitoring lesson outcomes, reaction to pupil behavior. These four procedures were supplemented by obtaining in the form of a transcript, a record of the teacher's actual actions during the course of the lesson.

The data contained in the pre-lesson planning record and the lesson review is being analyzed using a specially devised content analysis system. This has been designed to enable the researcher to categorize statements in these records according to their reference to particular intentions and plans of actions that have been considered or formulated. An additional set of categories has been developed to categorize the focus of teachers' thoughts during the actual lesson.

The fact that coding of this data is essentially undertaken in the course of the interview with the teacher has already been referred to. In dealing with the data, it has been felt that difficulties in interpretation and coding may be generally best dealt with, not by recourse to ground rules that may be appropriate when dealing with relatively unambiguous categories of observable behaviour, but by consultation with the teacher who is the author of the statements that represent his attempts to describe his own unobservable behaviour. The possibilities of developing procedures that might be used to assess the adequacy of the researcher's interview procedures is being explored.

In an associated paper by Freyberg (1978), problems that must be dealt with if questions of validity and reliability are to be handled satisfactorily are referred to. Again, this is an aspect of the research methodology that requires close attention. *.

The transcripts of the lesson are being used for several purposes. They provide a record of the actual events associated with the instances of recalled thought. They are used as a basis for examining and describing the relationship between pre-lesson planning and subsequent action. For example, the degree of specificity and scripting in pre-lesson planning of questions can be compared with the actual questions asked. This data is then set in the context of the comments made by the teacher in the course of the structured interview when the teacher discusses the reasons for the degree of comprehensiveness and detail that he believes characterizes the pre-lesson plans he typcially formulates when taking similar lessons. The extent to which the teacher's actual actions are shaped by pre-lesson intentions, within-lesson intentions, or represent an established automatic act or pattern of actions is being investigated, and the extent and nature of departures from plans identified.

The full range of possible data analyses has been explored with the data at hand. Given the relative novelty of topic and procedures, it was impossible to prescribe these in finite terms at the outset of data collection, and a number of new possibilities have continued to become during both data collection and data analysis phases. It was possible, for example, to introduce additional questions into the interviews over the three lessons and the content of the structured interview was partly shaped by the emerging data.

The Pay Off

What might be the payoff of obtaining through use of these procedures, answers to the questions posed earlier? At the present time, the concern is frequently expressed that teachers develop attitudes and skills that will enable them to consciously monitor and evaluate their own teaching effectiveness. The procedures used to identify teacher thoughts provide a means of guaging the extent to which a teacher's actions are actually based on deliberate, rational judgement and decision-making, or are essentially intuitive, habitual and routinized, and for examining the congruence between the teacher's thoughts and actions.

They provide an additional means of monitoring the influence of specific teacher education programmes on teachers. If such programmes are effective, one might expect that some of their effects will be represented in the teacher's thoughts, as well as his/her actual actions.

Overall, this study to date does not seem to provide much explicit evidence that the planning process is being shaped by the proposition of particular educational theorists. However, the cues to this may be more subtle than those initially looked for, and such theories may be overweighted as an input into teachers' own teaching theories. The evidence of a limited number of other studies suggests that teachers do not seem to follow the 'rational' model of planning that is likely to be prescribed by teacher educators and those involved in curriculum planning. Certainly, a number of the student teachers taking part in this study commented specifically on the fact that they appreciated not having the constraints of having to fit the planning thoughts they experienced to the sequence of categories of a prescribed written planning record. At the same time, however, one might also note the teacher who had recently returned to a classroom teaching job following a period of time as a relieving lecturer in education at a Teachers College. Here, planning thoughts, actual actions and the content of the interviews seem to provide evidence that theory and practice can in reality meet in the classroom.

The answers to such questions may allow us to identify some of the factors that help, hinder or thwart adaptive decision-making in a classroom. For example, the extent to which opportunities of reflection and deliberation on their own teaching actually exist or are created by teachers, either within or outside of lessons, the preparedness and ability of the teacher to deviate from pre-lesson plans and generate alternatives once a lesson is underway, and the effectiveness of strategies adopted by the teacher to cope with the load of information that may be inherent in particular teaching situations. Sensitivity to aspects of the mental life of teachers may help ensure that those interested in education hold expectations that are realistic and tenable.

Finally, teachers generally have few opportunities themselves to make

fellow teachers that can enable them to extend their

the sorts of observations of their personal knowledge and beliefs about the ends or actions that might be desirable or appropriate when they find themselves confronted with particular learners and learning conditions. In the present study, the data has delineated the ends and actions that 18 teachers considered were appropriate responses to the prescribed teaching task in the context of their own classrooms. Presented in a suitable form, information from such a study may provide other teachers with systematic information that gives them a basis for reflecting on and possibly extending their teaching repertoire. One can note here the frequently expressed interest of many of the teachers in this study in knowing how the others had gone about teaching the lessons. Louis Smith's now classic study of one teacher's thoughts and actions through one year of teaching provides a possible model for the type of written report that may perform this function.

Conclusion

In concluding this paper, it must be reiterated that in the process of seeking and presenting answers to research questions such as those considered here, the researcher must remain sensitive to the methodological difficulties and dangers that may be the accompaniment of these procedures. He must recognize the fact, unfortunately overlooked in much social science research, that successful use of such methods depends largely on the nature of the relationship established between the researcher and his co-researcher, otherwise known as "the subject".

REFERENCES

Freyberg, P. S., Teacher Intentions and Decision-Making. Paper presented at the ANZAAS 49th Congress, Auckland, New Zealand, 1979. (Freyberg, University of Waikato, Hamilton, New Zealand)